

U.S. Department of Transportation

Pipeline and Hazardous Materials Safety Administration

MAR 2.4 2008

Mr. Thomas Richichi 1350 I Street, N.W. Suite 700 Washington, D.C. 20005

Mr. Richichi:

This is in response to your letter regarding the assignment of packing group and hazard zones for Division 6.1 materials under § 173.133(a) of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). You reference a January 29, 1997 letter of interpretation from Delmer F. Billings to James R. Barrett in which we indicated that a material with a low vapor pressure such that it cannot readily vaporize or mist in transportation is not required to be evaluated against the inhalation exposure criteria in § 173.133(b). Specifically, you request confirmation that the letter applies to the packing group and hazard zone assignment criteria in § 173.133(b) and the criteria in § 173.133(a).

The January 29, 1997 letter you reference provides general classification procedures (i.e., determination of hazard class, hazard zone, packing group) for Division 6.1 materials. Therefore, the letter applies to all of §§ 173.132 and 173.133, as applicable, including the packing group and hazard zone criteria in paragraphs (a) and (b) of § 173.133.

I hope this information is helpful. Please contact us if you require additional assistance.

Sincerely,

John A. Gale

Chief, Standards Development

Office of Hazardous Materials Standards

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400 Seventh Street, S.Wf.

Washington, D.C. 20590

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February 3, 2006

Mr. Edward T. Mazzullo Director, Office of Hazardous Materials Standards US DOT/PHMSA (DHM-10) 400 7th Street, S.W. Washington, D.C. 20590-0001

Re: Packing Group and Hazard Zone Assignment Based on Inhalation Toxicity

Dear Mr. Mazzullo:

We have been asked to inquire about the applicability of certain inhalation toxicity criteria to the transportation of a chemical substance. In particular, I write to request clarification and guidance regarding a determination of whether inhalation toxicity must be considered in determining the packing group and hazard zone of a material under the Hazardous Materials Regulations 40 C.F.R. Part 173, promulgated by the Department of Transportation ("DOT") and specifically 49 C.F.R. § 173.133(a) which provides criteria for determining the packing group and hazard zone assignments for Division 6.1 materials.

It is our understanding that DOT has previously determined that inhalation toxicity does not have to be considered in determinations of whether a material is a Division 6.1 poison if that material will not readily form a vapor or mist "under conditions normally incident to transportation." *See* attached Letter from Delmer F. Billings, DOT, to James R. Barrett, Latham & Watkins (January 29, 1997) ("1997 DOT Letter"), responding to the Letter from James R. Barrett, Latham & Watkins, to Delmer F. Billings, DOT (August 2, 1996) ("Barrett Letter"). We would like confirmation that the analysis in the 1997 DOT Letter not only applies when determining whether a material is a Division 6.1 poisonous material, but also applies to assignments of packing group and hazard zone under 49 C.F.R. § 173.133(a).

Specifically, the regulations provide for assignment of packing group based on criteria for oral, dermal, and inhalation toxicity by dusts and mists. See 49 C.F.R. § 173.133(a)(1). The 1997 DOT Letter concluded that inhalation toxicity need not be considered in classifying a material as a Division 6.1 poisonous material if it did not readily form a mist under conditions normally incident to transportation. The material that was the subject of the 1997 DOT letter

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could, however, form an aerosol when subjected to mechanical manipulation. Barrett Letter at 2. We would like to confirm the conclusion suggested by the 1997 letter that inhalation toxicity by dusts and mists need not be considered when assigning a packing group to a substance that does not readily form a dust or mist under conditions normally incident to transportation, even though it might be possible to form an aerosol if the substance were subjected to mechanical manipulation as described in the Barrett Letter.

Related to this, the regulations also provide for assignment of packing group and hazard zone based on criteria for volatility and inhalation toxicity for *vapors*. See 49 C.F.R. § 173.133(a)(2). Again, the 1997 DOT Letter concluded that inhalation toxicity need not be considered in classifying a material as a Division 6.1 poisonous material, if it did not readily form a vapor under conditions normally incident to transportation. The material that was the subject of the 1997 DOT letter had a vapor pressure in the range of 10<sup>-4</sup> mm Hg. Barrett Letter at 2. We would also like to confirm that inhalation toxicity by vapors need not be considered when determining packing group and hazard zone if the substance does not readily form a vapor under conditions normally incident to transportation and the substance's low vapor pressure (e.g., in the range of 10<sup>-4</sup> mm Hg) effectively precludes performance of an acute inhalation study on the substance as a vapor under such conditions.

Thank you for your attention to this matter. Please feel free to contact me if you have any questions or if you need additional information to respond to this request.

Sincerely yours,

Thomas Richichi

Attachments